

## ABSTRACT

An apparatus for locating cylinders that are to be ignited in an engine. A plurality of equally spaced teeth are formed circumferentially on the entire periphery of the crankshaft. A sensor located in the vicinity of the crankshaft detects the passage of the teeth. The sensor includes a first detecting portion and a second detection portion spaced apart by an interval smaller than the pitch between the teeth. The first and the second detecting portions issue a high level or low level signal in accordance with the leading edge or trailing edge of a tooth passing by a detecting zone of the first and second detecting portions. An electronic control unit determines the rotating direction of the crank from the combination of the signals issued from the first and the second detecting portions and selectively adds or subtracts the detected number of teeth detected by the sensor in accordance with the rotating direction. The electronic control unit further controls the engine in accordance with the counted number of detected teeth.